



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

SEP 30 2010

Colonel Keith A. Landry  
District Engineer  
Louisville District Corps of Engineers  
Attn: Todd Hagman (Regulatory Branch)  
OP-FN, Room 752  
P.O. Box 59  
Louisville, Kentucky 40201-0059

Subject: Premier Elkhorn Coal Company, Little Fork Surface Mine  
U.S. Army Corps of Engineers LRL-2007-0594  
Kentucky Division of Mine Permits #898-0800

Dear Colonel Landry:

The U.S. Environmental Protection Agency (EPA), Region 4, has reviewed the information submitted by or on behalf of Premier Elkhorn Coal Company for impacts to jurisdictional waters of the United States as a result of proposed surface coal mining activities associated with its Little Fork Surface Mine in Pike County, Kentucky (LRL-2007-0594; #898-0800). Our review has included the April 24, 2007, original U.S. Army Corps of Engineers (Corps) Clean Water Act (CWA) Section 404 permit application; the March 19, 2009, CWA 404 Addendum No. 1; the February 4, 2010, Fill Placement Optimization Process (FPOP) documentation; the March 23, 2010, CWA 404 Addendum No. 3; and the June 10, 2010, FPOP/RAM #145 Addendum.

The applicant originally sought authorization to impact 6,845 linear feet (lf) of ephemeral and intermittent stream to facilitate construction of six hollow fills and four in-stream sediment ponds in unnamed jurisdictional tributaries to Little Fork, Robinson Creek, and Indian Creek. Little Fork discharges into Robinson Creek, and both Robinson Creek and Indian Creek discharge directly into Shelby Creek in the Levisa Fork watershed. Subsequently, the applicant revised the mine plan and presently proposes five hollow fills and four in-stream sediment control ponds. Anticipated impacts to jurisdictional waters now comprise 5,560 lf of ephemeral and intermittent streams, including 4,415 lf as a result of the hollow fills and 1,145 lf as a result of sediment control ponds and a "drainage corridor" between the toe of HF #3 and Pond #3. The applicant proposes to offset the permanent and temporary impacts via a combination of on-site stream restoration and payment of an in-lieu fee to the Kentucky Wetland and Stream Mitigation Program.

EPA's review is being conducted in accordance with the Enhanced Coordination Procedures (ECP) for surface coal mining applications as detailed in the June 11, 2009, *Memorandum of Understanding among the U.S. Department of Army, U.S. Department of Interior and the U.S. Environmental Protection Agency Implementing the Interagency Action*

*Plan on Appalachian Surface Coal Mining.* The ECP process for the Little Fork Surface Mine was initiated by the Corps Louisville District on August 19, 2010. However, EPA believes that there are a number of substantive unresolved issues with this permit that require detailed coordination between the Corps, EPA, the Kentucky Natural Resources Cabinet, and the applicant prior to moving forward. These issues include alternatives analysis, avoidance and minimization of impacts, protection of downstream water quality, and proposed compensatory mitigation. This letter elaborates on each of these issues and formally requests that a meeting be convened for the above referenced parties to begin addressing them as soon as possible.

Please note that this letter does not constitute EPA's final comments culminating the agency coordination phase of this ECP permit review. Instead, this letter broadly outlines EPA's concerns and proposes a meeting at your earliest convenience to address them with the Corps and the applicant.

### **Alternatives Analysis/Avoidance and Minimization of Impacts**

The Section 404(b)(1) Guidelines stipulate that only the least environmentally damaging practicable alternative (LEDPA) may be permitted, and to identify the LEDPA, the applicant's alternatives analysis must examine a full range of alternatives that would avoid and minimize impacts to aquatic resources to the maximum extent practicable. In March 2009, the applicant identified the existing reclaimed refuse impoundment adjacent to the proposed Little Fork Surface Mine as a potential off-site spoil storage location and noted that it could potentially store up to 1.6 million cubic yards of spoil material. The applicant has subsequently dismissed using the reclaimed impoundment for spoil storage due to economic and technical concerns about the geotechnical stability of the impoundment and the potential for excess spoil material to increase the volume and/or concentration of acid mine drainage presently discharging from the impoundment.

In July 2010, EPA informally told the applicant that additional information would likely be required by EPA in order to substantiate the applicant's concerns with spoil storage on the reclaimed impoundment, and this was reiterated by EPA in its August 20, 2010, e-mail to the Corps Louisville District. In its September 14, 2010, response to EPA's e-mail, the applicant included a letter from Mr. Barry Thacker, PE, of Geo/Environmental Associates, Inc., expressing his opinion that "...the use of the abandoned Premier No. 2 Slurry Impoundment for placement of excess spoil may be cost prohibitive," (Thacker, September 14, 2010). However, no engineering calculations, maps, figures, economic data or any other information was presented to support Mr. Thacker's opinion. The record continues to lack any discernible evidence that a technical analysis has been conducted on the impoundment to demonstrate its potential to safely store a significant volume of spoil material.

Pending receipt and review of substantive technical and engineering analysis of the impoundment's capacity to safely accommodate excess spoil material, EPA believes it is premature to conclude that the applicant's plan for the Little Fork Surface Mine is in fact the project's LEDPA. EPA still considers this alternative to be available, and the applicant has not provided adequate technical analysis to demonstrate that the use of the impoundment would not be feasible.

## **Water Quality**

Data collected by the permit applicant in March 2007, and by the EPA Science and Ecosystem Support Division (SESD) in February 2010, indicates that water quality in project streams and their receiving waters is already impaired. In fact, Indian Creek, which is the receiving water for 6 of the applicant's 37 National Pollutant Discharge Elimination Systems (NPDES) outfalls, is on the KY 2006, 2008, and draft 2010 CWA 303(d) List (partially supporting warm water aquatic habitat) for sedimentation/siltation and Total Dissolved Solids. Eight additional NPDES outfalls associated with the project discharge to unnamed tributaries of Indian Creek. Listed causes of impairment in Indian Creek include surface mining.

To our knowledge, Premier Elkhorn has not identified specific construction practices, i.e. Best Management Practices (BMPs) that would be implemented during the placement of fill material into waters of the United States and during mining activities that would mitigate the likelihood of long-term adverse water quality impacts to downstream receiving waters. EPA believes that the applicant should compile and submit for review and approval an Adaptive Management Plan (AMP) that addresses the potential for the project to exacerbate existing downstream water quality impairments and identifies specific actions to be undertaken to ameliorate such effects. The AMP should include, at a minimum, efforts to identify and isolate geologic strata capable of generating "coal-mining related pollutants," as defined above, and it should also include on-site measures (e.g. BMP's) to minimize the formation and mobilization of such pollutants into jurisdictional waters of the U.S.

## **Compensatory Mitigation**

Premier Elkhorn's CWA 404 application materials indicate that the so referenced "temporary" impacts to 1,145 lf of stream may be in place for up to 10 years before restoration. EPA considers such duration to be beyond the defensible definition of the term "temporary," and believes that these impacts should be evaluated and mitigated contemporaneously with the impacts themselves; not 10 years later. Even the proposed on-site restoration of the tributary draining HF #1 will not likely occur for up to 10 years following permit issuance, because Pond #1 lies approximately 600 linear feet downstream from the proposed toe of HF #1 at Little Fork Road. Restoration of this stream would make little practical or ecological sense while sediment is being transported through this stream reach between the fill and Pond #1.

The applicant utilized the Eastern Kentucky Stream Assessment Protocol (EKYSAP) to estimate requisite compensatory mitigation. While the EKYSAP in its most robust form utilizes specific conductivity, the EPA Rapid Bioassessment Protocols (RBP) habitat assessment (Barbour et al., 1999), and macroinvertebrate community data (Sparks et al, 2003)<sup>1</sup>, the applicant relied on solely specific conductivity and the RBP habitat assessment collected in March 2007 as the input to the EKYSAP spreadsheets. The applicant's RBP habitat scores collected in March 2007 are over sixty percent less on average than the RBP scores collected by EPA SEDS in February 2010. In addition, the applicant's specific conductivity data reported in March 2007

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<sup>1</sup> Sparks et al. 2003. Stream assessment protocol for headwater streams in the Eastern Kentucky Coalfield region. Aquatic Resources News: A Regulatory Newsletter 2(1), U.S. Army Corps of Engineers, Regulatory Branch, Washington, D.C.

averages forty-seven percent more than EPA data collected in February 2010. Because the EKSAP assigns mitigation requirements inversely proportional to specific conductivity and directly proportional to RBP habitat scores, the above referenced disparities in the data lead to similar differences in compensatory mitigation requirements.

In addition, while the applicant indicates that all permanent and alleged temporary impacts occur in ephemeral and intermittent streams, EPA believes that most stream reaches proposed to be impacted by this project are not in fact ephemeral, but are instead relatively permanent waters that flow at least seasonally and in many cases, perennially. During field work conducted on-site by EPA SEDS in February 2010, site specific criteria representing hydrological, geomorphological, and biological indicators of intermittent and even perennial stream conditions were documented and catalogued in tributaries draining hollow fills HF #1, HF #3, HF #5, and HF #6. During a subsequent EPA site inspection in late August 2010 with the applicant's consultant, EPA documented similar, but less exhaustive, hydrology and geomorphology indicators of hydrologic permanence in tributaries draining HF #1, HF #3, and HF #6. EPA notes that the bulk of proposed compensatory mitigation for this project is now comprised of an in-lieu fee (ILF) payment to the Kentucky Department of Fish and Wildlife Resources, Wetland and Stream Mitigation Program, yet ephemeral streams are mitigated at ratios one-half of intermittent streams and one-third of perennial streams using the Corps Louisville District's ILF Compensatory Mitigation Calculator (vers. 2002.6).

### **Cumulative Impacts/Environmental Justice**

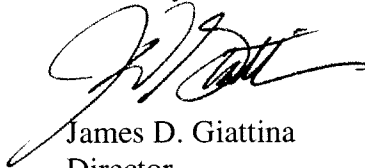
Based on our review of the Premier Elkhorn permit package, which included a Cumulative Impact Assessment (CIA) for the Upper Levisa, EPA believes it may be appropriate for you to prepare an Environmental Impact Statement (EIS) concerning this proposed project. In making the determination regarding the need to prepare an EIS, we recommend that you consider the relatively large scale of the impacts associated with proposed project, e.g., the loss of over 4,400 lf of stream habitats and the construction of five valley fills, as well as questions concerning how effective the proposed mitigation will be at reducing the severity of the potential direct, indirect, and cumulative impacts. In that light, based on the information available to EPA, it is not clear that the current mitigation proposal would serve as a basis to support a Finding of No Significant Impact. With regard to the CIA, we are particularly concerned that the geographic boundary (HUC-8) may be too large spatially to provide a meaningful analysis of impacts from mining in the affected watershed. In addition, we are concerned that the CIA does not address potential cumulative human health impacts, and that the CIA presents several instances of incomplete information.

Consistent with Executive Order 12898 entitled "Federal Actions to Address Environmental Justice In Minority Populations and Low-Income Populations" and the accompanying Presidential Memorandum, EPA recommends that the Corps' Section 404(b)(1) Guidelines and NEPA reviews analyze the potential for disproportionately high and adverse effects on low-income or minority populations in the area. Specifically, a characterization of the economic status of residents near the site and the conditions they face including any effects relating to the proximity of the blasting zone, locations of discharges of fill material, truck traffic, noise, fugitive dust, and habitat loss needs to be conducted. Additional information is

also needed concerning sources of drinking water for the affected populations (including municipal water supplies and private sources of drinking water including streams and/or wells). EPA also recommends that you take steps to ensure meaningful engagement of affected communities.

EPA staff would appreciate the opportunity to discuss with you this issue of whether an EIS should be prepared, as well as our other concerns with the permit application. I want to thank you and your staff for your cooperation and willingness to address our issues. We look forward to working closely with you and the applicant to resolve the concerns outlined above, and we are willing to meet and discuss them at your earliest convenience. If you have any questions, please call me at (404) 562-9470 or Eric Somerville of my staff at (706) 355-8514.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Giattina', written over a horizontal line.

James D. Giattina  
Director  
Water Protection Division

cc: Jim Townsend, Louisville District, Louisville, KY  
Lee Anne Devine, Louisville District, Louisville, KY  
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